

The Office Action states that “Zumeris discloses a piezoelectric response plate 10 having electrodes 18,20, two electrical conductive strips (see figure 26D).” The Office Action further states that the “piezoelectric is held by two mounting elements 392 without the use of adhesive” and that “the mounting arms are constructed as oblong (see figure 27).” However, applicant respectfully submits that Zumeris does not disclose or fairly teach a mounting element having an electrical contact surface and a piezoelectric resonator having a electrical point of contact on a lateral surface. Zumeris also does not teach that the piezoelectric resonator is clamped, without the use of adhesive, in a plane between a first mounting element and a second mounting element such that the first electrical contact surface operably contacts the electrical contact point.

Specifically, Zumeris teaches a ceramic disc-drive actuator having four electrodes that are plated onto the face of a ceramic to form a checkerboard pattern. Diagonally located electrodes are electrically connected by wires and excitation of the electrodes results in a left or right movement of the ceramic body. The electrodes are excited by a control system that has switch modulators connected to the surface of each of the four electrodes. The ceramic may then be supported by fixed or spring loaded supports which are preferably made from a stiff rubber in order to constrain movement of the ceramic and to provide shock protection. Although the fixed or spring loaded supports may be positioned along a lateral edge of the ceramic, the Zumeris patent never discloses any means for creating an electrical contact to the piezoelectric ceramic along its lateral surface. In fact, Zumeris specifically states that the electrical contacts are positioned on the surface of the electrodes.

In contrast, new claim 21 of the present application states that the piezoelectric resonator has “an electrical contact point provided on a lateral surface of the resonator” and “a first mounting element having a first electrical contact surface.” Claim 21 further states that the piezoelectric resonator is clamped “in a plane between the first mounting element and the second

teach such a radial conductive strip, it cannot be said that Yoshinaga anticipates this aspect of the present invention.

For the aforementioned reasons, it is respectfully submitted that Claims 21-39 are allowable over the prior art, and that the application is in condition for allowance. Notice to that effect is requested.

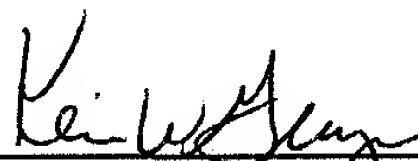
Any questions should be directed to the undersigned.

Respectfully submitted,

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January 14, 2002

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14/02

Date



JoEllen Hogan

of Frequency of Quartz Plate Resonators", Proc. 37th AFCS p. 194-199, 1983, which is incorporated herein by reference.

On page 9, please insert the following rewritten paragraph:

Also, via at least one excitation electrode 2 and at least two conductive strips [3,] 4, and its conductive connection with at least two mounting arms 6, 7, or 11, the electrical resistance can be measured and can be used to obtain values of the temperature of the electrode and or the resonator lamina 1, respectively, in particular by using platin electrodes. Further, via the electrode and its conductive connection with the mounting arms 6, 7, or 11, the resonator lamina 1 can be heated or thermally stabilized by leading an electric current therethrough. This heating or thermal stabilizing could be in combination with an arrangement to measure the temperature of the resonator lamina or the area surrounding the resonator lamina and a calculation of the necessary, current value and control of the current source such that the exact required current value is supplied to the electrodes.